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EXAMINER

HOLLIDAY, JAIME MICHELE

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/673,153	Applicant(s) TAKEDA ET AL.	
	Examiner Jaime M. Holliday	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,8,13,17 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,9-12,14-16,18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Response to Arguments

1. Applicant's arguments, filed January 27, 2006, with respect to **claims 1, 3-6, 9, 10, 12-15 and 16-20** have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed January 27, 2006, with respect to **claims 2, 7, 8, and 11** have been fully considered but they are not persuasive.

In the present application, Applicant argues that Tanaka fails to disclose or suggest that bidirectional information is synchronized with simplex information and that the encrypted information is synchronized with the key information and that the encrypted information is synchronized with the key information for encrypting the information

The Examiner respectfully disagrees with Applicant's argument, because previously submitted claim 2 merely recites an information synchronizer that synchronizes a time frame of information transmitted via first and second wireless channels. Tanaka teaches broadcast start times of broadcast frames on a control channel and a channel defined by broadcast information. It is inherent that a system clock is used, which is also capable to synchronizing these broadcast frames, reading on the limitation "an information synchronizer which synchronizes a time frame of information transmitted via said first and second wireless channels with each other."

In view of the above reasons, the Examiner maintains rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2617

6. **Claims 1, 6, 7, 11, 12, 16, 18 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kim (U.S. Patent # 6,873,853 B2)** in view of **Tanaka et al. (U.S Patent # 6,256,509 B1)**.

Consider **claim 1**, Kim clearly shows and discloses a cellular mobile communication system network reading on the claimed "wireless system" (abstract and column 3 lines 6-7), comprising: an apparatus for providing a commercial type of broadcasting service to a mobile subscriber terminal through a wireless channel, reading on the claimed "wireless apparatus which performs a broadcast service for a plurality of wireless terminals" (figure 1 and column 3 lines 50-52);

a uni-directional downlink channel carrying the broadcasting traffic is referred to as a CTBCH (Common Traffic Broadcasting Channel), the CTBCH channel serves to transmit the broadcasting traffic data to all the authorized mobile subscribers reading on the claimed "simplex first wireless channels each being set between said wireless apparatus and said plurality of wireless terminals for the broadcasting service"; and

a bi-directional channel carrying the control signals is referred to as a SSCH (Secure Signaling Channel), the SSCH channel is a dedicated channel for signaling to a specified authorized subscriber only, usable for the purposes, for example, of calling, channel connection, protocol agreement, information transfer, and/or channel release reading on the claimed "bidirectional second wireless channel being set between said wireless apparatus and said plurality of

wireless terminals, for adding supplemental service to said broadcast service”
(column 5 lines 10-20); wherein

a series of broadcasting data received from a broadcasting system
enciphered, with the common traffic ciphered key, and then broadcasting the
series of broadcasting data through a common traffic broadcasting channel,
reading on the claimed “first wireless channels transmit by encoding information”;
and

a control signal is transmitted with a common traffic ciphered key having a
specified validation period, through a secure signal channel assigned exclusively
to a respective authorized subscriber terminal for the broadcasting service,
reading on the claimed “second wireless channel transmits key information which
encrypts information transmitted via said first wireless channel” (column 3 lines 8-
15).

However, Kim fails to disclose that the cellular mobile communication
system network, reading on the claimed “wireless system” (abstract and column
3 lines 6-7), further comprises an information synchronizer.

In the same field of endeavor, Tanaka et al. clearly show and disclose a
broadcast information delivering system, reading on the claimed “wireless
system,” that includes a plurality of wireless terminals **60** and a wireless base
station **20** transmitting to a control channel, reading on the claimed “second
wireless channel,” the system control information and broadcast control
information, and transmitting the broadcast frame containing broadcast

information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29).

The broadcast start time **303** of the broadcast frame indicates the broadcast start time of a sub-frame of the broadcast frame. If a system clock inherent to the cellular system designates this time, it will be easy to synchronize the base station with the mobile station for receiving the broadcast frames, reading on the claimed "information synchronizer which synchronizes a time frame of information transmitted via said first and second wireless channels with each other," (figures 3 and 4, column 6 lines 66-67 and column 7 lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system clock inherent to the cellular system, reading on the claimed "wireless system," as taught by Tanaka et al. in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, in order to synchronize the information on the common traffic broadcasting channel and secure signal channel, reading on the claimed "first and second wireless channels."

Consider **claim 6**, Kim, as modified by Tanaka, clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Kim further discloses the periodic updating of the common traffic ciphered key according to said respective validation period, reading on the claimed "decrypting information of said encrypted broadcast service" (column 3 lines 17-18).

Consider **claim 7**, Kim clearly shows and discloses a cellular mobile communication system network reading on the claimed “wireless system” (abstract and column 3 lines 6-7), comprising:

an apparatus for providing a commercial type of broadcasting service to a mobile subscriber terminal through a wireless channel, reading on the claimed “a first wireless apparatus which performs a broadcast service for a plurality of wireless terminals and a second wireless apparatus which performs an supplemental service relating to said broadcast service” (figure 1 and column 3 lines 50-52);

a uni-directional downlink channel carrying the broadcasting traffic is referred to as a CTBCH (Common Traffic Broadcasting Channel), the CTBCH channel serves to transmit the broadcasting traffic data to all the authorized mobile subscribers reading on the claimed “simplex first wireless channels each being set between said first wireless apparatus and said plurality of wireless terminals, in which said first wireless apparatus performs said broadcast service to said plurality of wireless terminals”; and

a bi-directional channel carrying the control signals is referred to as a SSCH (Secure Signaling Channel), the SSCH channel is a dedicated channel for signaling to a specified authorized subscriber only, usable for the purposes, for example, of calling, channel connection, protocol agreement, information transfer, and/or channel release reading on the claimed “a bidirectional second wireless channel set between said second wireless apparatus and at least

portion of said plurality of wireless terminals, which offers said supplemental service" (column 5 lines 10-20); wherein

a series of broadcasting data received from a broadcasting system is enciphered, with the common traffic ciphered key, and then broadcasting the series of broadcasting data through a common traffic broadcasting channel, reading on the claimed "first wireless channels transmit by encoding information"; and

a control signal is transmitted with a common traffic ciphered key having a specified validation period, through a secure signal channel assigned exclusively to a respective authorized subscriber terminal for the broadcasting service, reading on the claimed "second wireless channel transmits key information which encrypts information transmitted via said first wireless channel" (column 3 lines 8-15).

However, Kim does not specifically disclose that the cellular mobile communication system network, reading on the claimed "wireless system" (abstract and column 3 lines 6-7), further comprises an information synchronizer.

In the same field of endeavor, Tanaka et al. clearly show and disclose a broadcast information delivering system, reading on the claimed "wireless system," that includes a plurality of wireless terminals and a wireless base station transmitting to a control channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received

by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29). The broadcast start time of the broadcast frame indicates the broadcast start time of a sub-frame of the broadcast frame. If a system clock inherent to the cellular system designates this time, it will be easy to synchronize the base station with the mobile station for receiving the broadcast frames, reading on the claimed "information synthesizer which synchronizes a time frame of information transmitted via said first and second wireless channels with each other," (figures 3 and 4, column 6 lines 66-67 and column 7 lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system clock inherent to the cellular system, reading on the claimed "wireless system," as taught by Tanaka et al. in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, in order to synchronize the information on the common traffic broadcasting channel and secure signal channel, reading on the claimed "first and second wireless channels."

Consider **claim 11**, Kim, as modified by Tanaka et al., discloses the **claimed invention as applied to claim 7 above**, and in addition, Kim further discloses periodic updating of the common traffic ciphered key according to said respective validation period, reading on the claimed "decrypting information of said encrypted broadcast service" (column 3 lines 17-18).

Consider **claim 12**, Kim clearly shows and discloses a base station **110**, reading on the claimed "wireless base station," comprising:

a common traffic broadcasting channel, a uni-directional downlink channel carrying the broadcasting traffic, reading on the claimed "simplex first wireless channels each being set for a plurality of wireless terminals, which perform broadcast service"; and

a dedicated secure signal channel, a bi-directional channel carrying the control signals, assigned to a respective authorized subscriber terminal for the broadcasting service, reading on the claimed "a bidirectional second wireless channel set for at least one of said plurality of wireless terminals, which offers an supplemental service relating to said broadcast service" (column 3 lines 56-64 and column 5 lines 10-20); wherein

at least one base station, reading on the claimed "wireless base station," enciphers the formatted broadcasting data provided from the broadcasting system, with the common traffic ciphered key, for broadcasting through a common traffic broadcasting channel, reading on the claimed "first wireless channel transmits information encrypted"; and

transmits a control signal including a common traffic ciphered key having a specified validation period through a dedicated secure signal channel assigned to a respective authorized subscriber terminal, reading on the claimed "second wireless channel transmits key information which decrypts information transmitted via said first wireless channel" (column 3 lines 56-64).

However, Kim does not specifically disclose that the base station, reading on the claimed "wireless base station" (abstract and column 3 lines 6-7), further comprises an information synchronizer.

In the same field of endeavor, Tanaka et al. clearly show and disclose a broadcast information delivering system, reading on the claimed "wireless system," that includes a plurality of wireless terminals and a wireless base station transmitting to a control channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29). The broadcast start time of the broadcast frame indicates the broadcast start time of a sub-frame of the broadcast frame. If a system clock inherent to the cellular system designates this time, it will be easy to synchronize the base station with the mobile station for receiving the broadcast frames, reading on the claimed "information synthesizer which synchronizes a time frame of information transmitted via said first and second wireless channels with each other," (figures 3 and 4, column 6 lines 66-67 and column 7 lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system clock inherent to the cellular system, reading on the claimed "wireless system," as taught by Tanaka

et al. in the cellular mobile communication system network, reading on the claimed “wireless system,” of Kim, in order to synchronize the information on the common traffic broadcasting channel and secure signal channel, reading on the claimed “first and second wireless channels.”

Consider **claim 16**, Kim clearly shows and discloses at least one mobile subscriber terminal **120** and an apparatus for providing a commercial type of broadcasting service to a mobile subscriber terminal through a wireless channel, reading on the claimed “wireless terminal receives offering of a broadcast service from a wireless apparatus,” comprising:

deciphering the broadcasting signal received through the common traffic broadcasting channel, which is a uni-directional downlink channel carrying the broadcasting traffic, reading on the claimed “simplex first wireless channel set for said wireless apparatus, which receives a broadcast service from said wireless apparatus”;

receiving the control signal through the dedicated secure signal channel, which is a bi-directional channel carrying the control signals, reading on the claimed “bidirectional second wireless channel set for said wireless apparatus, which receives a supplemental service relating to said broadcast service from said wireless apparatus” (column 3 lines 50-52 and 64-67, column 4 lines 1-4 and column 5 lines 10-11 and 13-14); wherein

at least one mobile subscriber terminal, reading on the claimed “wireless terminal,” deciphers the broadcasting signal received through the common traffic

broadcasting channel with the obtained common traffic ciphered key to obtain therefrom the broadcasting data, reading on the claimed "first wireless channel transmits information encrypted"; and

obtains the common traffic ciphered key from the control signal received through the dedicated secure signal channel, reading on the claimed "second wireless channel transmits key information which encrypts information transmitted via said first wireless channel" (column 3 lines 64-67 and column 4 lines 1-4).

However, Kim fails to disclose that the cellular mobile communication system network, reading on the claimed "wireless system" (abstract and column 3 lines 6-7), further comprises an information synchronizer.

In the same field of endeavor, Tanaka et al. clearly show and disclose a broadcast information delivering system, reading on the claimed "wireless system," that includes a plurality of wireless terminals **60** and a wireless base station **20** transmitting to a control channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29). The broadcast start time **303** of the broadcast frame indicates the broadcast start time of a sub-frame of the broadcast frame. If a system clock inherent to the

cellular system designates this time, it will be easy to synchronize the base station with the mobile station for receiving the broadcast frames, reading on the claimed "information synchronizer which synchronizes a time frame of information transmitted via said first and second wireless channels with each other," (figures 3 and 4, column 6 lines 66-67 and column 7 lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system clock inherent to the cellular system, reading on the claimed "wireless system," as taught by Tanaka et al. in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, in order to synchronize the information on the common traffic broadcasting channel and secure signal channel, reading on the claimed "first and second wireless channels."

Consider **claim 18**, Kim clearly shows and discloses a mobile subscriber terminal, reading on the claimed "wireless terminal" and at least one base station, reading on the claimed "first and second wireless apparatus," (column 3 lines 56 and 64) comprising:

deciphering the broadcasting signal received through the common traffic broadcasting channel, which is a uni-directional downlink channel carrying the broadcasting traffic, reading on the claimed "simplex first wireless channel set for said wireless apparatus, which receives a broadcast service from said wireless apparatus"; and

receiving the control signal through the dedicated secure signal channel, which is a bi-directional channel carrying the control signals, reading on the claimed "bidirectional second wireless channel set for said wireless apparatus, which receives an supplemental service relating to said broadcast service from said wireless apparatus" (column 3 lines 64-67, column 4 lines 1-4 and column 5 lines 10-11 and 13-14), wherein

at least one mobile subscriber terminal, reading on the claimed "wireless terminal," deciphers the broadcasting signal received through the common traffic broadcasting channel with the obtained common traffic ciphered key to obtain therefrom the broadcasting data, reading on the claimed "first wireless channel transmits information encrypted"; and

obtains the common traffic ciphered key from the control signal received through the dedicated secure signal channel, reading on the claimed "second wireless channel transmits key information which encrypts information transmitted via said first wireless channel" (column 3 lines 64-67 and column 4 lines 1-4).

However, Kim fails to disclose that the cellular mobile communication system network, reading on the claimed "wireless system" (abstract and column 3 lines 6-7), further comprises an information synchronizer.

In the same field of endeavor, Tanaka et al. clearly show and disclose a broadcast information delivering system, reading on the claimed "wireless system," that includes a plurality of wireless terminals 60 and a wireless base

station **20** transmitting to a control channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29). The broadcast start time **303** of the broadcast frame indicates the broadcast start time of a sub-frame of the broadcast frame. If a system clock inherent to the cellular system designates this time, it will be easy to synchronize the base station with the mobile station for receiving the broadcast frames, reading on the claimed "information synchronizer which synchronizes a time frame of information transmitted via said first and second wireless channels with each other," (figures 3 and 4, column 6 lines 66-67 and column 7 lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system clock inherent to the cellular system, reading on the claimed "wireless system," as taught by Tanaka et al. in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, in order to synchronize the information on the common traffic broadcasting channel and secure signal channel, reading on the claimed "first and second wireless channels."

Consider **claim 20**, Kim clearly shows and discloses a method of a cellular mobile communication system network, reading on the claimed “wireless communication method,” comprising:

providing only authorized mobile subscribers with a specified commercial broadcasting service through a wireless channel in a base station, and by enciphering a series of broadcasting data received from a broadcasting system, with the common traffic ciphered key, and then broadcasting the series of broadcasting data through a common traffic broadcasting channel, reading on the claimed “performing a broadcast service from a wireless apparatus to a plurality of wireless terminals, by using simplex first wireless channels each being set between said wireless apparatus which performs the broadcast service for said plurality of wireless terminals and each of said plurality of wireless terminals”;

transmitting a control signal with a common traffic ciphered key having a specified validation period, through a secure signal channel assigned exclusively to a respective authorized subscriber terminal for the broadcasting service, reading on the claimed “offering an supplemental service relating to said broadcast service by using a bidirectional wireless channel set between said wireless apparatus and at least one of said plurality of wireless terminal” (figures 1 and 2, column 2 lines 57-59 and column 3 lines 4-15); and

at least one mobile subscriber terminal, reading on the claimed “wireless terminal,” deciphering the broadcasting signal received through the common

traffic broadcasting channel with the obtained common traffic ciphered key to obtain therefrom the broadcasting data, reading on the claimed "first wireless channel transmits information encrypted"; and

obtaining the common traffic ciphered key from the control signal received through the dedicated secure signal channel, reading on the claimed "second wireless channel transmits key information which encrypts information transmitted via said first wireless channel" (column 3 lines 64-67 and column 4 lines 1-4).

However, Kim fails to disclose that the cellular mobile communication system network, reading on the claimed "wireless system" (abstract and column 3 lines 6-7), further comprises an information synchronizer.

In the same field of endeavor, Tanaka et al. clearly show and disclose a broadcast information delivering system, reading on the claimed "wireless system," that includes a plurality of wireless terminals **60** and a wireless base station **20** transmitting to a control channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29). The broadcast start time **303** of the broadcast frame indicates the broadcast start time of a sub-frame of the broadcast frame. If a system clock inherent to the

cellular system designates this time, it will be easy to synchronize the base station with the mobile station for receiving the broadcast frames, reading on the claimed "synchronizing a time frame of information transmitted via said first and second wireless channels with each other," (figures 3 and 4, column 6 lines 66-67 and column 7 lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system clock inherent to the cellular system, reading on the claimed "wireless system," as taught by Tanaka et al. in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, in order to synchronize the information on the common traffic broadcasting channel and secure signal channel, reading on the claimed "first and second wireless channels."

7. **Claims 4, 5, 9, 10, 14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kim (U.S. Patent # 6,873,853 B2)** in view of **Tanaka et al. (U.S. Patent # 6,256,509 B1)**, and in further view of **D'Amico et al. (U.S. Patent # 6,741,554 B2)**.

Consider **claim 4**, and **applied to claim 1 above**, Kim, as modified by Tanaka et al., clearly shows and discloses the claimed invention except that the secure signal channel transmits retransmission requests and information corresponding to the information transmitted via the common traffic broadcasting channel.

In the same field of endeavor, D'Amico et al. clearly show and disclose a first wireless device in a wireless communications network, reading on the claimed "wireless system comprising a wireless apparatus," transmits an information packet to a second wireless device in the network over a first wireless communications channel, reading on the claimed "first wireless channel." The first device determines (e.g., via an acknowledgment received from the second device) whether the information packet was successfully received by the second device, reading on the claimed "uplink of said second wireless channel transmits retransmission request information of at least portion of information transmitted via said first wireless channel." If the second device did not successfully receive the information packet, the first device retransmits the information packet to the second device over a second wireless communication channel, reading on the claimed "downlink of said second wireless channel transmits information corresponding to said retransmission request information" (column 2 lines 56-67 and column 3 lines 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an acknowledgement of receipt of information, reading on the claimed "retransmission request information," and the actual retransmission of the information on the second wireless communication channel, reading on the claimed "second wireless channel," as taught by D'Amico et al., in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, as modified by D'Amico, in

order to provide reliable communication while performing a commercial type of broadcast service.

Consider **claim 5**, the combination of Kim and Tanaka et al., as modified by D'Amico, **as applied to claim 4 above** shows the claimed invention, and in addition, Tanaka et al. clearly show and disclose a broadcast information delivering system, reading on the claimed "wireless system," that includes a plurality of wireless terminals and a wireless base station transmitting to a control channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29), where users are charged an information utility fee. The charged information is enciphered and a decipher key is distributed from an information provider to each user terminal (column 3 lines 64-65). A terminal apparatus, in which the term of validity for the currently holding decipher key has expired, requests the contents provider system **10** to supply a new decipher key. Upon receiving the request for a new decipher key specified by the contents ID from the terminal apparatus, the contents provider system charges the terminal apparatus for the information service charge for a period from the date of request until the expiration of the decipher date, reading on the claimed "charge collection control unit which charges in accordance with the amount of

information transmitted via the downlink of said second wireless channel,”
(figures 1 and 4, column 6 lines 58-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a means of charging an information utility fee as taught by Tanaka et al., in the cellular mobile communication system network, reading on the claimed “wireless system,” of Kim, in order to charge for the information sent by the broadcast service.

Consider **claim 9**, and as applied to claim 7 above, Kim, as modified by Tanaka et al., clearly shows the claimed invention except that the secure signal channel transmits retransmission requests and information corresponding to the information transmitted via the common traffic broadcasting channel.

In the same field of endeavor, D’Amico et al. clearly show and disclose a first wireless device in a wireless communications network, reading on the claimed “wireless system comprising a first and second wireless apparatus,” transmits an information packet to a second wireless device in the network over a first wireless communications channel, reading on the claimed “first wireless channel.” The first device determines (e.g., via an acknowledgment received from the second device) whether the information packet was successfully received by the second device, reading on the claimed “uplink of said second wireless channel transmits retransmission request information of at least portion of information transmitted via said first wireless channel.” If the second device did not successfully receive the information packet, the first device retransmits

the information packet to the second device over a second wireless communication channel, reading on the claimed "downlink of said second wireless channel transmits information corresponding to said retransmission request information" (column 2 lines 56-67 and column 3 lines 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an acknowledgement of receipt of information, reading on the claimed "retransmission request information," and the actual retransmission of the information on the second wireless communication channel, reading on the claimed "second wireless channel," as taught by D'Amico et al., in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, as modified by Tanaka et al., in order to provide reliable communication while performing a commercial type of broadcast service.

Consider **claim 10**, the combination of Kim and Tanaka et al., as modified by D'Amico et al., clearly show the claimed invention **as applied to claim 9 above**, and in addition, Tanaka et al. further disclose that users in a broadcast information delivering system, reading on the claimed "wireless system," are charged an information utility fee. The charged information is enciphered and a decipher key is distributed from an information provider to each user terminal (column 3 lines 64-65). A terminal apparatus, in which the term of validity for the currently holding decipher key has expired, requests the contents provider system **10** to supply a new decipher key. Upon receiving the request for a new

decipher key specified by the contents ID from the terminal apparatus, the contents provider system charges the terminal apparatus for the information service charge for a period from the date of request until the expiration of the decipher date, reading on the claimed "charge collection control unit which charges in accordance with the amount of information transmitted via the downlink of said second wireless channel," (figures 1 and 4, column 6 lines 58-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a means of charging an information utility fee as taught by Tanaka et al., in the cellular mobile communication system network, reading on the claimed "wireless system," of Kim, in order to charge for the information sent by the broadcast service.

Consider **claim 14**, and **as applied to claim 12 above**, Kim, as modified by Tanaka et al., clearly shows and discloses the claimed invention except that the base station, reading on the claimed "wireless base station," comprises a secure signal channel that transmits retransmission requests and information corresponding to the information transmitted via the common traffic broadcasting channel.

In the same field of endeavor, D'Amico et al. clearly show and disclose a first wireless device, reading on the claimed "wireless base station," transmits an information packet to a second wireless device in the network over a first wireless communications channel, reading on the claimed "first wireless

channel.” The first device determines (e.g., via an acknowledgment received from the second device) whether the information packet was successfully received by the second device, reading on the claimed “uplink of said second wireless channel transmits retransmission request information of at least portion of information transmitted via said first wireless channel.” If the second device did not successfully receive the information packet, the first device retransmits the information packet to the second device over a second wireless communication channel, reading on the claimed “downlink of said second wireless channel transmits information corresponding to said retransmission request information” (column 2 lines 56-67 and column 3 lines 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an acknowledgement of receipt of information, reading on the claimed “retransmission request information,” and the actual retransmission of the information on the second wireless communication channel, reading on the claimed “second wireless channel,” as taught by D’Amico et al., in base station, reading on the claimed “wireless base station,” of Kim, as modified by Tanaka et al., in order to provide reliable communication while performing a commercial type of broadcast service.

Consider **claim 15**, the combination of Kim and Tanaka et al., as modified by D’Amico, **as applied to claim 14 above**, and in addition, Tanaka et al. clearly show and disclose a broadcast information delivering system that includes a plurality of wireless terminals and a wireless base station transmitting to a control

channel, reading on the claimed "second wireless channel," the system control information and broadcast control information, and transmitting the broadcast frame containing broadcast information to be received by unspecified wireless terminals to a specific channel defined by the broadcast control information, reading on the claimed "first wireless channel" (abstract, column 1 lines 59-60 and column 2 lines 20-29), where users are charged an information utility fee. The charged information is enciphered and a decipher key is distributed from an information provider to each user terminal (column 3 lines 64-65). A terminal apparatus, in which the term of validity for the currently holding decipher key has expired, requests the contents provider system 10 to supply a new decipher key. Upon receiving the request for a new decipher key specified by the contents ID from the terminal apparatus, the contents provider system charges the terminal apparatus for the information service charge for a period from the date of request until the expiration of the decipher date, reading on the claimed "charge collection control unit which charges in accordance with the amount of information transmitted via the downlink of said second wireless channel," (figures 1 and 4, column 6 lines 58-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a means of charging an information utility fee as taught by Tanaka et al., in the base station, reading on the claimed "wireless base station," of Kim, in order to charge for the information sent by the broadcast service.

Conclusion

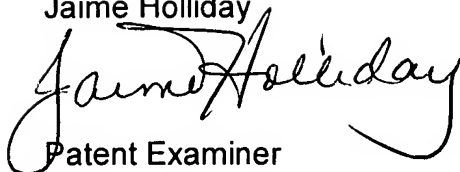
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jaime Holliday

Patent Examiner


NICK CORSARO
PRIMARY EXAMINER